

CLAIMS

What is claimed is:

1. An optical disc changer, comprising:
a main body;
a tray slidably installed in the main body;
a roulette rotatably installed at the tray to accommodate a plurality of optical discs;
an optical pickup device to reproduce the optical disc accommodated on the roulette;
a first hook step protruding from one of the tray and the main body and a first stop member provided on the other of the tray and the main body at a position to bump against the hook step at a point when loading is completed; and
a first damper provided at a bump portion of the first hook step and/or the first stop member.
2. The optical disc changer as claimed in claim 1, further comprising a second hook step and a second stop member disposed so that the second hook step bumps against the second stop member at a point where unloading is completed, to limit a movement range of the tray during unloading, and a second damper provided at a bump portion at the second hook step and/or the second stop member.
3. The optical disc changer as claimed in claim 1, wherein the first hook step and the second hook step form a common hook step.
4. The optical disc changer as claimed in claim 3, wherein the first damper and the second damper are respectively provided at both side surfaces of the common hook step.
5. The optical disc changer as claimed in claim 4, wherein the first hook step and the second hook step form a common hook step.
6. The optical disc changer as claimed in claim 5, wherein the common hook step includes a protrusion provided at the tray or the main body, and the common damper has a cylindrical shape and is fixedly inserted around the protrusion.

7. The optical disc changer as claimed in claim 2, wherein the second hook step and the second stop member, approaching each other in a direction opposite to a direction during unloading, pass by each other so as not to bump against each other.

8. The optical disc changer as claimed in claim 7, wherein at least one of the second hook step and the second stop member retreats when a force is applied in a direction opposite to a direction during unloading and elastically returns to the original position when the force is removed.

9. The optical disc changer as claimed in claim 8, wherein the second hook step or the second stop member has an inclination at a side opposite to a side that bumps during unloading and, when approaching each other in a direction opposite to a direction during unloading, the second hook step and the second stop member retreat by the inclination.

10. The optical disc changer as claimed in claim 9, wherein the inclination is formed at a side of the common hook step close to the first stop member and the second stop member bumps against the common damper without contacting the inclination.

11. The optical disc changer as claimed in claim 10, wherein the second hook step or the second stop member are extended from one side of a through hole formed in the tray or the main body and formed on a plate having elasticity.

12. The optical disc changer as claimed in claim 9, wherein the second hook step or the second stop member are extended from one side of the through hole formed in the tray or the main body and formed on a plate having elasticity.

13. The optical disc changer as claimed in claim 8, wherein the second hook step or the second stop member is extended from one side of a through hole formed in the tray or the main body and formed on a plate having elasticity.

14. The optical disc changer as claimed in claim 13, wherein the damper is installed on the plate.

15. The optical disc changer as claimed in claim 12, wherein the damper is installed on the plate.

16. The optical disc changer as claimed in claim 11, wherein the damper is installed on the plate.

17. An optical disc changer, comprising:
a main body;
a tray slidably installed in the main body;
a roulette rotatably installed at the tray to accommodate a plurality of optical discs;
an optical pickup device to selectively reproduce one of the optical discs accommodated on the roulette; and
a damping unit to absorb shock when the tray is unloaded from the main body to prevent defective reproduction of the one optical disc.

18. The optical disc changer as claimed in claim 17, wherein:
the tray comprises a plurality of stop members to stop the tray at unloaded and loaded positions; and
the damping unit comprises a plate extended from one side of a through hole formed at the main body, and a damper provided on the plate to absorb shock when the tray bumps against each of the stop members.

19. The optical disc changer as claimed in claim 18, wherein the damper is disposed between the stop members.

20. The optical disc changer as claimed in claim 18, wherein the damping unit further comprises a hooking protrusion to prevent the tray from escaping from the main body.

21. The optical disc changer as claimed in claim 20, wherein the damper is disposed to bump against the stop member prior to the hooking protrusion when the tray is unloaded.

22. The optical disc changer as claimed in claim 18, wherein the damper is formed of a rubber.

23. The optical disc changer as claimed in claim 18, wherein said stop members are formed integrally with said tray.

24. The optical disc changer as claimed in claim 18, wherein said stop members are arranged at the same interval on said tray as a distance said tray moves between the unloaded and load positions loaded or unloaded.

25. The optical disc changer as claimed in claim 18, wherein said plate is formed of an elastic material.

26. The optical disc changer as claimed in claim 18, further comprising a hooking protrusion formed on said plate such that when the tray is being unloaded, said stop members contact said damper before contacting said hooking member.

27. The optical disc changer as claimed in claim 17, wherein said damping unit is away from the edges of said tray when said tray is in the unloaded position.

28. The optical disc changer as claimed in claim 17, wherein said damping unit is underneath said tray.

29. The optical disc changer as claimed in claim 17, wherein said damping unit is formed on two opposite sides of said main body.